

(19)



JAPANESE PATENT OFFICE

5

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 03197394 A

(43) Date of publication of application: 28 . 08 . 91

(51) Int. Cl.

C30B 29/54  
C30B 23/02  
C30B 30/02

(21) Application number: 01335507

(22) Date of filing: 25 . 12 . 89

(71) Applicant: SUMITOMO ELECTRIC IND LTD

(72) Inventor:  
OGAKI YASUJI  
MIZOGUCHI AKIRA  
UENISHI NAOTA  
UEMIYA TAKAFUMI  
HATTORI YASUHIRO

(54) METHOD FOR GROWING ORGANIC CRYSTAL

(57) Abstract:

PURPOSE: To obtain an organic crystal free from reverse symmetry center and useful for nonlinear optical material for conversion of wavelength without carrying out molecular modification by growing an organic crystal by vacuum deposition on a desirable region of substrate surface in an electric field.

CONSTITUTION: An organic crystal, e.g. 4-dimethylamino-4'-nitrostilbene crystal is grown on a

desired region of the surface of a substrate such as KCl by vacuum deposition in an electric field. According to the method, the direction of dipole coincides with the direction of the outer electric field by the interaction between a dipole moment of each molecule released into vacuum and the outer electric field and each molecule reaches the surface of substrate in a state having uniformly arranged orientation, and in such a manner, the crystal is grown.

COPYRIGHT: (C)1991,JPO&Japio